

CLAIMS

1. A pipette dispenser unit, comprising:
  - a) a hand-held pipette dispenser having a pipette connector and a handle;
  - b) a source of positive and negative air pressure in fluid connection with said pipette connector; and,
  - c) a foot-operated controller for regulating the flow of air between said air pressure source and said pipette connector.
2. The pipette dispenser unit recited in claim 2, wherein said controller includes at least one foot-operated control pedal that throttles air between said air pressure source and said pipette connector.
3. The pipette dispenser unit recited in claim 1, wherein said controller includes a first foot-operated control pedal that controls positive air pressure and a second pedal that controls negative air pressure.
4. The pipette dispenser unit recited in claim 3, wherein said controller includes a microcontroller, a potentiometer connected to each pedal, and a plurality of valves connected to said air pressure source.
5. The pipette dispenser unit recited in claim 4, wherein said microcontroller uses pulse width modulation at a pre-programmed frequency to selectively open and close said valves.

6. The pipette dispenser unit recited in claim 5, wherein said microcontroller activates said air pressure source only after a preprogrammed threshold signal limit has been received from one of the foot pedals.

7. The pipette dispenser unit recited in claim 1, wherein said air pressure source is located proximate said foot-operated controller.

8. The pipette dispenser recited in claim 1, wherein said pipette dispenser comprises a gun-type dispenser having a barrel supporting said pipette connector and a handle connected to said barrel.

9. The pipette dispenser unit recited in claim 8, wherein the distance between said handle and the barrel is adjustable.

10. The pipette dispenser unit recited in claim 9, wherein said handle includes a hand grip and a plurality of telescoping support members.

11. The pipette dispenser unit recited in claim 1, wherein said handle is extendable from said dispenser.

12. A pipette dispenser unit, comprising:

- a) a hand-held pipette dispenser having a pipette connector and a handle;
- b) a remote source of positive and negative air pressure in fluid connection with said pipette connector; and,
- c) foot-operated means for controlling the flow of air between said air pressure source and said pipette connector, said control means including a first and second foot-operated control pedal that throttles air between said air pressure source

and said pipette dispenser, said first foot-operated control pedal controlling positive air pressure and the second pedal controlling negative air pressure.

13. The pipette dispenser unit recited in claim 12, wherein said control means includes a microcontroller, a potentiometer connected to each pedal, and a plurality of valves connected to said air pressure source.

14. The pipette dispenser unit recited in claim 13, wherein said microcontroller uses pulse width modulation at a pre-programmed frequency to selectively open and close said valves.

15. The pipette dispenser unit recited in claim 14, wherein said microcontroller activates said air pressure source only after a preprogrammed threshold signal limit has been received from one of said foot pedals.

16. The pipette dispenser unit recited in claim 1, wherein said air pressure source is located proximate said foot-operated control means.

17. The pipette dispenser recited in claim 12, wherein said pipette dispenser comprises a gun-type dispenser having a barrel supporting said pipette connector and a an extendable handle connected to said barrel, said handle including a hand grip and a plurality of telescoping support members.

18. A method of metering fluid through a pipette, comprising the steps of:  
a) providing a pipette dispenser unit having a hand-held pipette dispenser with a pipette connector and a handle, a source of positive and negative air pressure in

fluid connection with said pipette connector, and a foot-operated controller for regulating the flow of air between said air pressure source and said pipette connector;

- b) connecting a pipette to the pipette dispenser;
- c) holding the dispenser with a hand; and,
- d) controlling fluid flow through the pipette by operating the controller

with at least one foot.

19. The method recited in claim 18, including the step of providing a lengthwise-adjustable handle on said pipette dispenser and adjusting the length of the handle.

20. A hand-held pipette dispenser, comprising a barrel, a pipette connector fixed to one end of said barrel, and an extendable handle fixed to the other end the barrel, said handle having a hand grip and a telescoping support member connecting said hand grip to said barrel.